

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007022**Date Inspected:** 28-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei / Sun Bo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

OBG Sub-Assembly Bay 12:

The QA Inspector randomly observed ZPMC welding personnel performing heat straightening operations to reduce weld induced distortion from welding the T=35 millimeter (mm) thick I-Ribs Deck Plate 1AE-DP605-001 (In Process Yellow Tag Number 001480) at Complete Joint Penetration (CJP) Weld Joint (WJ) Numbers 009, 011 and 013. DP605-001 is placed upside down, with heat being applied directly to the welds attaching the I-Ribs to DP605-001. The QA Inspector randomly observed that both restraints and jacks (passive) were being used but no counter weights. The work was being performed in accordance with ZPMC Heat Straightening Request (HSR) HSR(B)-250 Rev. 0.

The QA Inspector randomly observed a ZPMC Carbon Air Arc Gouging Operator utilizing the Carbon Air Arc Gouging Process to gouge out and remove rejects in WJ's 017 and 019 in Deck Plate 1AE-DP590-001, which were detected during a previous ZPMC QC Ultrasonic Testing (UT) Examination.

The QA Inspector randomly observed a ZPMC helper utilizing an angle grinder to clean up excavations after Carbon Air Arc Gouging Operations had been performed in WJ's 013 and 017 in Deck Plate 1AE-DP615-001 to remove rejects detected during previous ZPMC QC Ultrasonic Testing (UT) Examination.

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Heavy Equipment Shop (Tower) Bay 13:

The QA Inspector randomly observed ZPMC welders Ge Tao ID 067765, Qie Jian Zhou ID 067571 and Fang Xin You ID 037748, utilizing the SMAW Process in the 4G (Overhead Groove) position with ZPMC WPS WPS-345-SMAW-4G(4F)-FCM-Repair, to perform weld repairs in accordance with ZPMC Weld Repair Request (WRR) WRR BWR2058 at WJ SEG009A-007 in a seam between a Side Plate and Bottom Plate on OBG Assembly 2BW. The QA Inspector randomly observed ZPMC QC verifying weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC Ultrasonic Testing (UT) Technicians Huang Jing and Xue Hai Yong, utilizing the Ultrasonic Testing Method to examine WJ SEG007A-32 on OBG Assembly 2AW.

The QA Inspector randomly observed a ZPMC helper utilizing an angle grinder to clean up excavations after Carbon Air Arc Gouging Operations had been performed in WJ SEG0054-007, between a Side Plate and Bottom Plate on OBG Assembly 2BW to remove rejects detected during previous ZPMC QC UT Examination. The areas marked by ZPMC for repairs were at locations Y=11220 and Y=11780.

The QA Inspector randomly observed several Floor Beam Sub-Assemblies haphazardly stacked with no dunnage and apparently no attempt to protect these already fabricated and Green Tagged parts from damage due to improper storage. Parts of individual Floor Beam Sub-Assemblies appear to be already bent.

The QA Inspector randomly observed a pick of Longitudinal Diaphragm Sub-Assembly LD034-001 onto the Bottom Plate Section of OBG Assembly 2BW. LD034-001 was placed directly on top of cut off temporary angle bracing which was piled on the top flanges of the bottom plate T-Ribs. There were 3 I-Ribs on the downside of LD034-001. The QA Inspector randomly observed that one of the outside I-Ribs was across the top flanges of the bottom plate T-Ribs, the center I-Rib was across the discarded temporary angle bracing mentioned above and the 3rd and other outside I-Rib was just suspended over an empty space with no support at all. There was no dunnage used at all.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
